

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 44370PCT1	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 03/04022	International filing date (day/month/year) 17/09/2003	(Earliest) Priority Date (day/month/year) 17/09/2002
Applicant GENERIC (UK) LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 9 sheets.
☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ Certain claims were found unsearchable (See Box I).
3. ☒ Unity of invention is lacking (see Box II).

4. With regard to the title,

- ☐ the text is approved as submitted by the applicant.
- ☒ the text has been established by this Authority to read as follows:

PROCESS FOR THE PREPARATION OF 2-AMINO-4,5,6,7-TETRAHYDRO-6-AMINOBENZOTHAZOLES
FROM CYCLOHEXANES AND CYCLOHEXANONES AS INTERMEDIATES

5. With regard to the abstract,

- ☐ the text is approved as submitted by the applicant.
- ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- ☒ as suggested by the applicant.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.

1
☐ None of the figures.

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Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The present application relates to processes for the preparation of 2-amino-4,5,6,7-tetrahydro-6-aminobenzothiazoles (5a) from cyclohexanes (2a) and cyclohexanones (3a) as intermediates.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D277/82 C07D317/72 C07C225/20 A61K31/429 A61P25/18
A61P25/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 207 696 A (LILLY CO ELI) 7 January 1987 (1987-01-07) page 7, line 16 -page 9, line 2; claims 1-6	10,11,13
A	page 7, line 16 -page 11, line 4 page 16, line 10 -page 18, line 15 claims 1-12	1-24
X	WO 02 22590 A (POSPISILIK KAREL; LEMMENS JACOBUS MARIA (NL); SYNTHON B V (NL); HO) 21 March 2002 (2002-03-21) claims 9-18,20-22	13-16
A	page 19, line 5 -page 2, line 17; claims 9-18,20-22	1-24
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

10 February 2004

Date of mailing of the international search report

18/02/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 731 374 A (KOBINGER WALTER ET AL) 15 March 1988 (1988-03-15) cited in the application column 16, line 63 -column 17, line 3; claims	13,14, 17-24
A	column 3, line 34 -column 4, line 26 & US 4 886 812 A 12 December 1989 (1989-12-12) cited in the application & US 4 843 086 A cited in the application	1
X	WO 02 22591 A (POSPISILIK KAREL; SYNTHON B V (NL)) 21 March 2002 (2002-03-21) cited in the application page 1, line 5 -page 2, line 2 page 14, line 15 - line 29 page 17, line 20 - line 25	13-24
X	WO 96 18395 A (BOEHRINGER INGELHEIM KG; ROHDE FRANK A (DE); UPJOHN CO (US); HALL) 20 June 1996 (1996-06-20) claims	13-24
X	WO 99 59563 A (GOMEZ MANCILLA BALTAZAR; UPJOHN CO (US)) 25 November 1999 (1999-11-25) page 5, line 6 - line 18	13-15, 17-24
X	DE 36 20 813 A (BOEHRINGER INGELHEIM KG) 23 December 1987 (1987-12-23) claims 1,7,8; example 1	13,15-24
X	EP 0 749 962 A (LILLY CO ELI) 27 December 1996 (1996-12-27) page 14, line 17 - line 35 page 14, line 17 - line 38	10,11
A		1
X	US 5 708 187 A (FLAUGH MICHAEL EDWARD ET AL) 13 January 1998 (1998-01-13) column 17, line 53 -column 18, line 12 column 17, line 53 -column 18, line 18	10,11
A		1
X	EP 1 008 592 A (FUJIREBIO KK) 14 June 2000 (2000-06-14) example 118	10

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-16

Process for the preparation of compound 5a, which is already known from the art, from intermediates 2a and 3a, these intermediates, and the known product 5a per se.

2. Claims: 17-24

Pharmaceutical compositions and methods making use of the known compound 5a.

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 23 and 24 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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Information on patent family members

International Application No

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